

# United States Patent [19]

### Honkasalo et al.

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### [54] CONTROL OF HANDOVER AND TRANSMISSION POWER CONTROL OF MOBILE STATION IN A MOBILE TELECOMMUNICATIONS SYSTEM

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Notice: This patent is subject to a terminal dis-

claimer.

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## Related U.S. Application Data

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[.	51]	Int. Cl. <sup>6</sup>			Но	)4Q 7	/22
[	52]	U.S. Cl		455/437;	455/522;	455/67	7.1;
					4	-55/22	6.1
[	58]	Field of Sea					
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525, 67.1, 726.1, 226.2, 226.3, 435; 375/200

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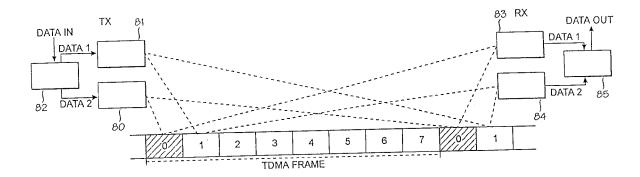
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#### **ABSTRACT** [57]

The invention relates to controlling transmission power and carrying out a handover during a data transmission over the radio path between a mobile station and a base station (BTS) in a mobile telecommunications system. A mobile station can be allocated at least two traffic channels for a high-speed data transmission. The mobile station is arranged to measure the characteristics of the received signal, such as the signal level and/or quality, in each of the allocated traffic channels. The radio network is arranged to control the transmitting power of the mobile and base stations and make the decision on a handover on the basis of a combination of measurement results of two or more traffic channels, or on the basis of the measurement result of the poorest traffic channel.

# 42 Claims, 9 Drawing Sheets



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